
National Petroleum Council

Short-Term Actions & Transition Strategies

Petroleum Market Developments – Progress and Actions to Increase Supply and Improve Resilience

Principles and Oil and Gas Industry Initiatives and Technologies for Progressing to Net Zero

**Andy Madden
Subcommittee Chair**

December 14, 2022

Study Request and Reports

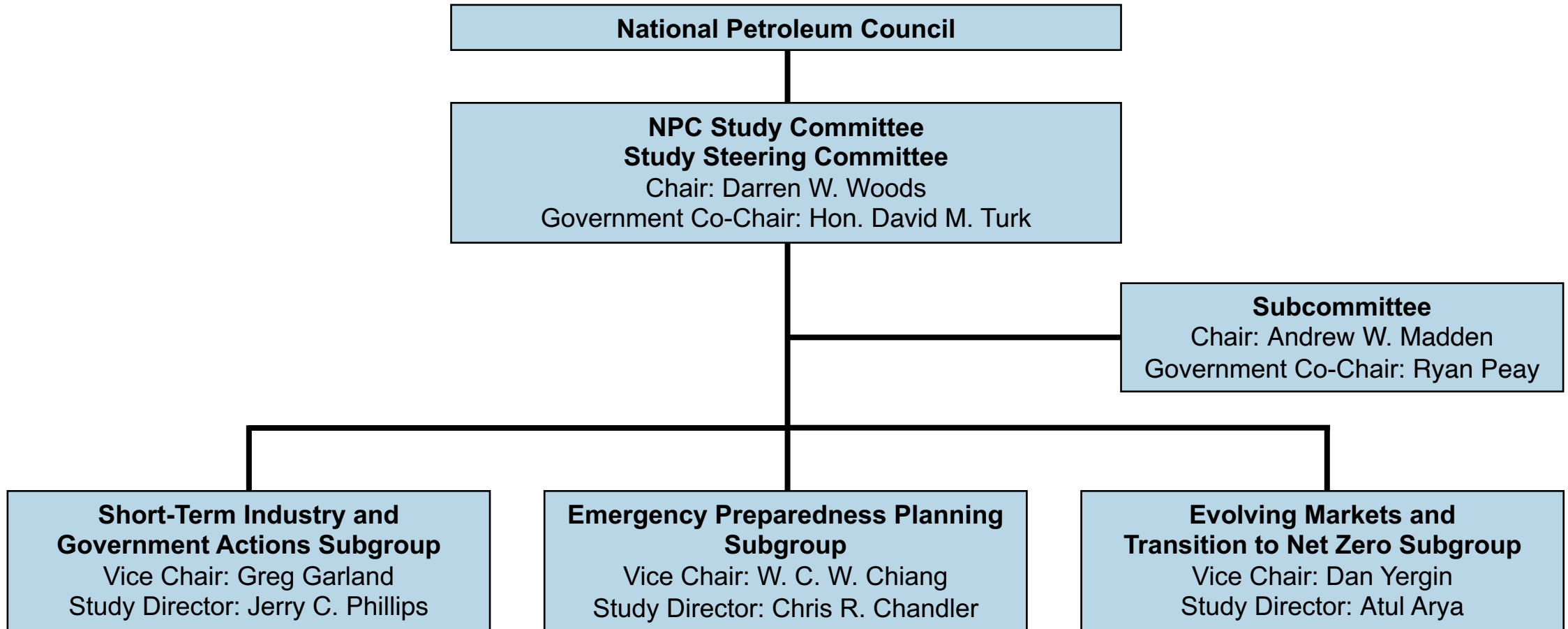
Secretary Granholm met with NPC CCC on July 1st and followed up with a written request on July 29th for the NPC to provide information and advice on:

- 1. How industry is working to supply oil and refined products to U.S. consumers**
- 2. Near-term steps the administration can consider to increase physical supply**
- 3. The evolving global oil market and its impact on U.S. producers, suppliers and refiners**
- 4. Industry steps to actively support a net-zero economy by 2050**

Report issued in two separate parts

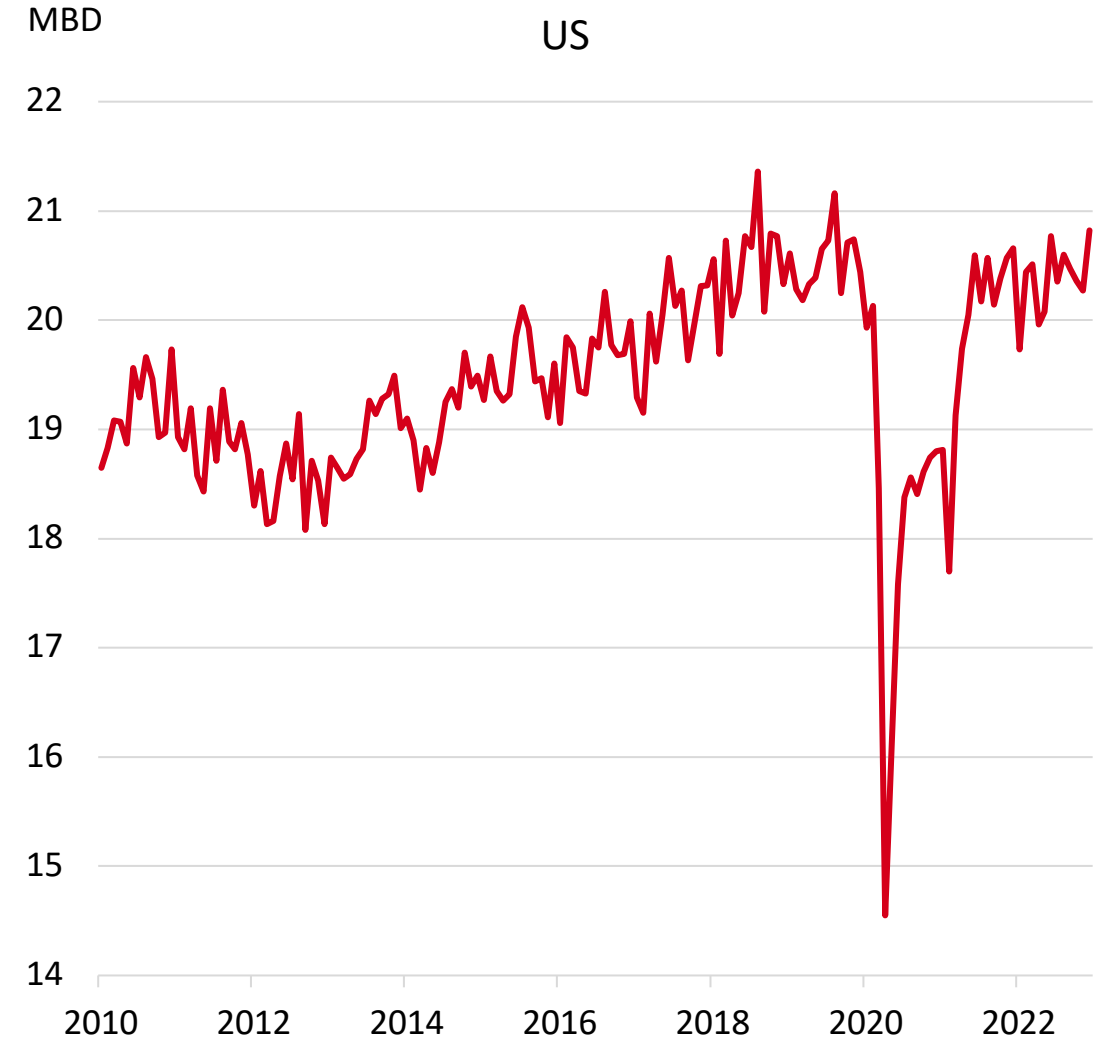
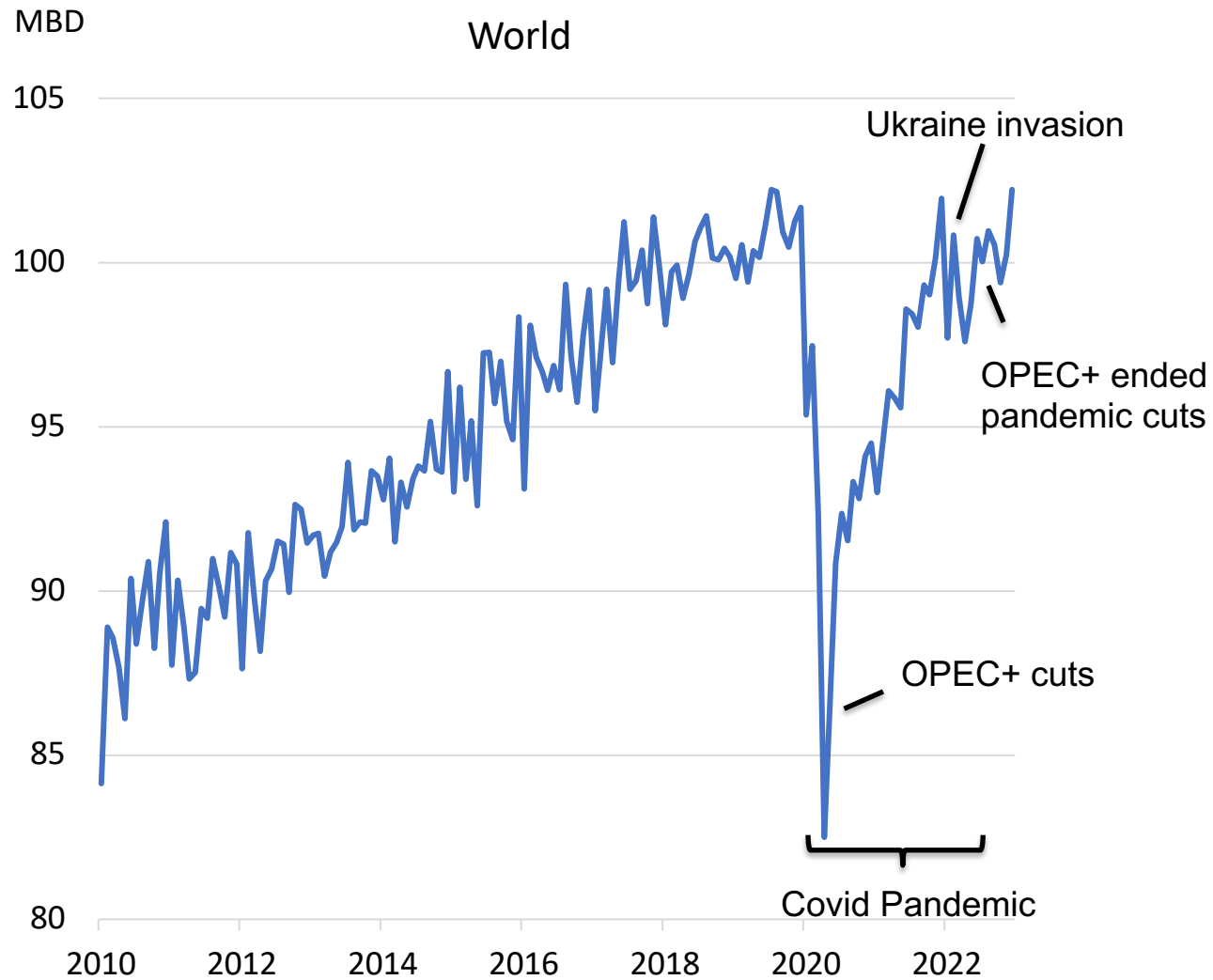
- 1. Petroleum Market Developments - Progress and Actions to Increase Supply and Improve Resilience (including Strengthening Emergency Preparedness)**
- 2. Principles and Oil and Gas Industry Initiatives and Technologies for Progressing to Net Zero**

Organizational Structure

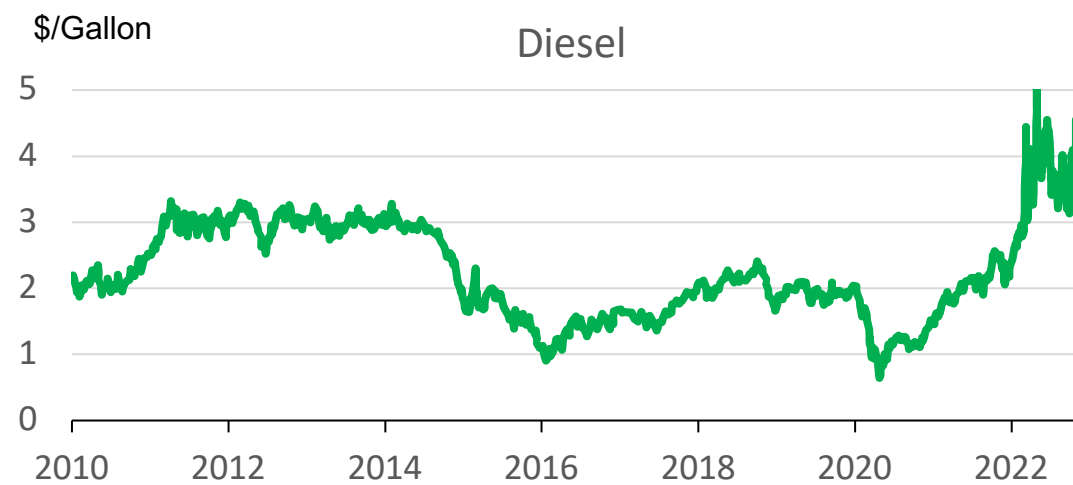
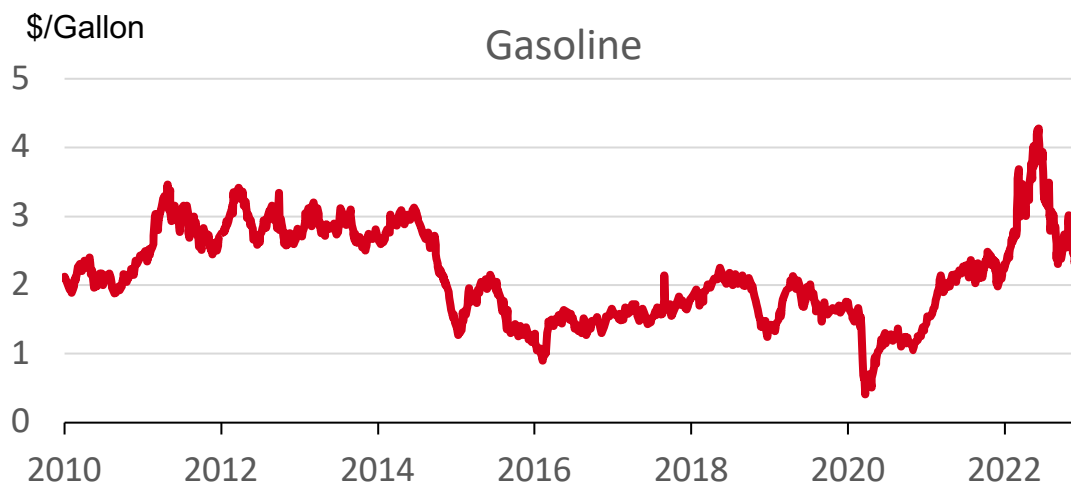
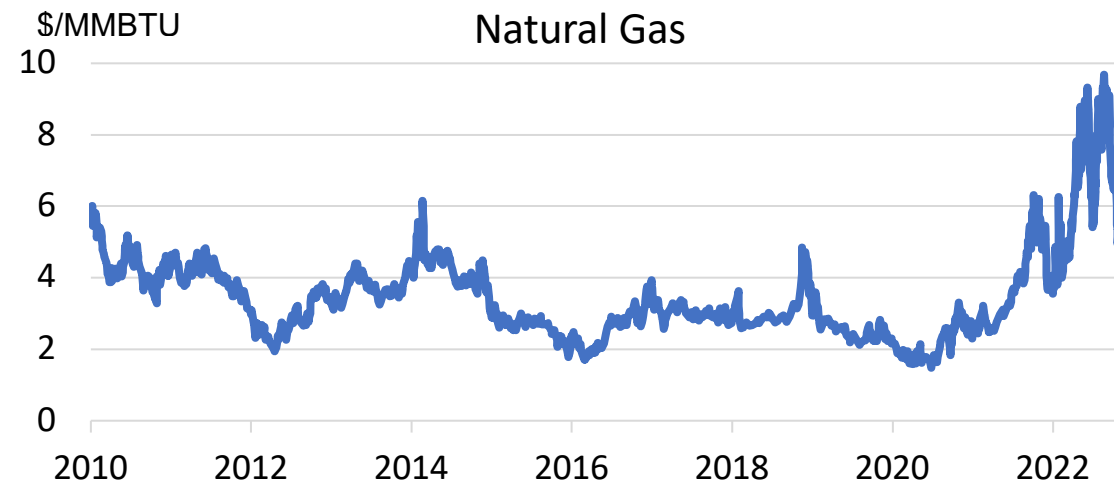
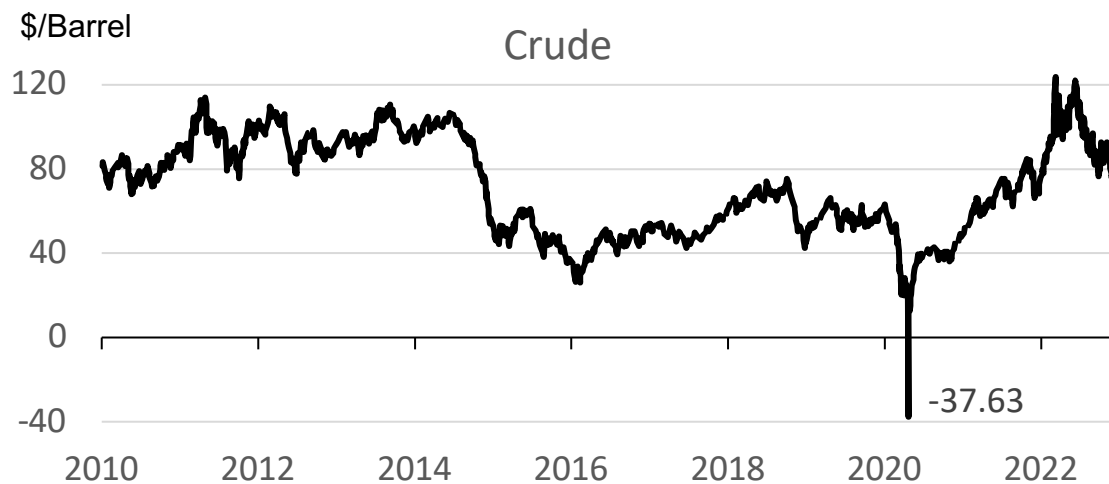


Petroleum Market Developments – Progress and Actions to Increase Supply and Improve Resilience

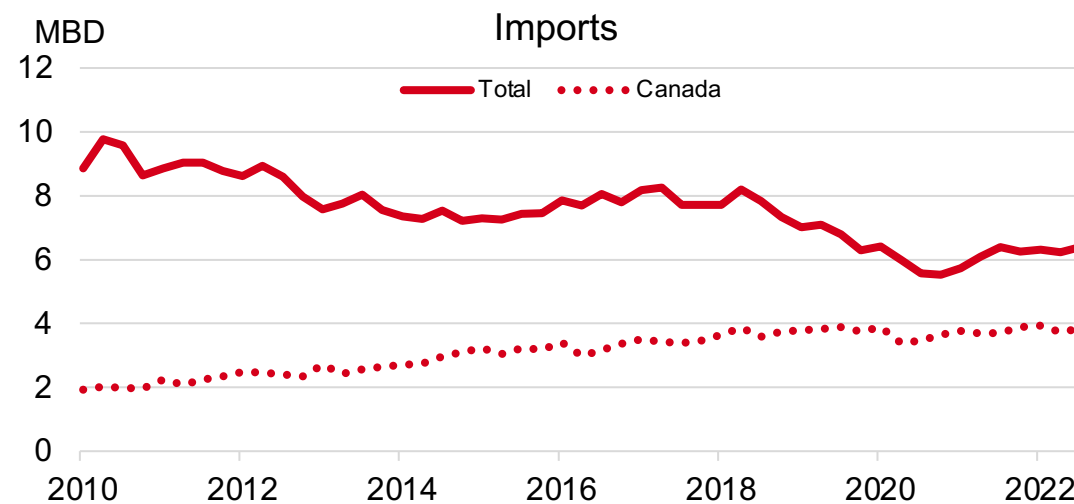
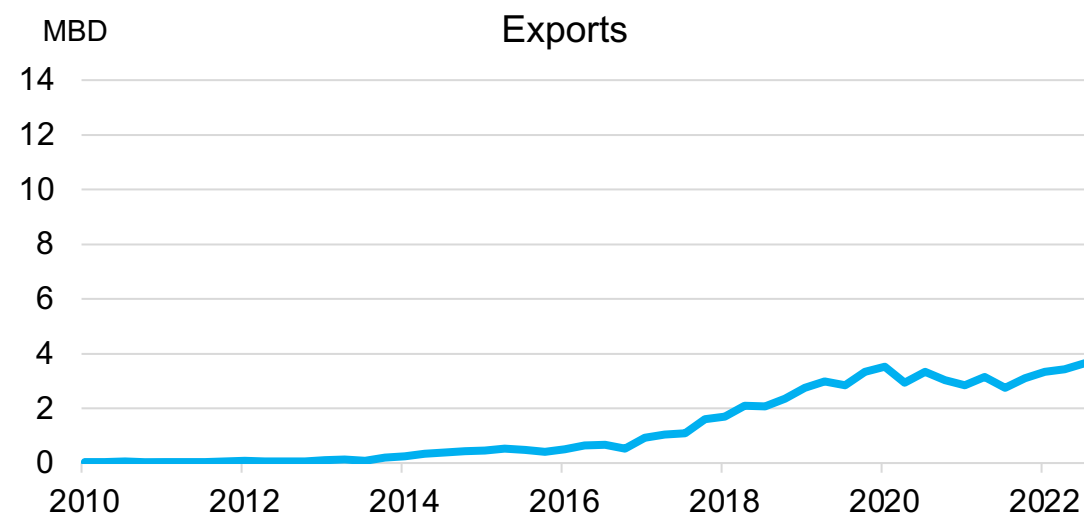
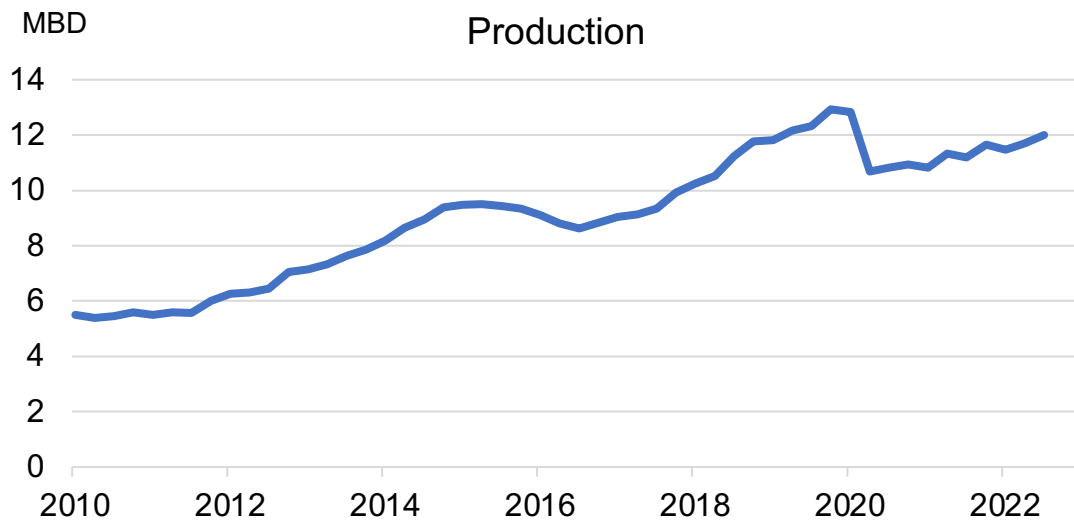
Oil Demand – Major Impacts of COVID Pandemic



U.S. Prices – Impact of Supply and Demand

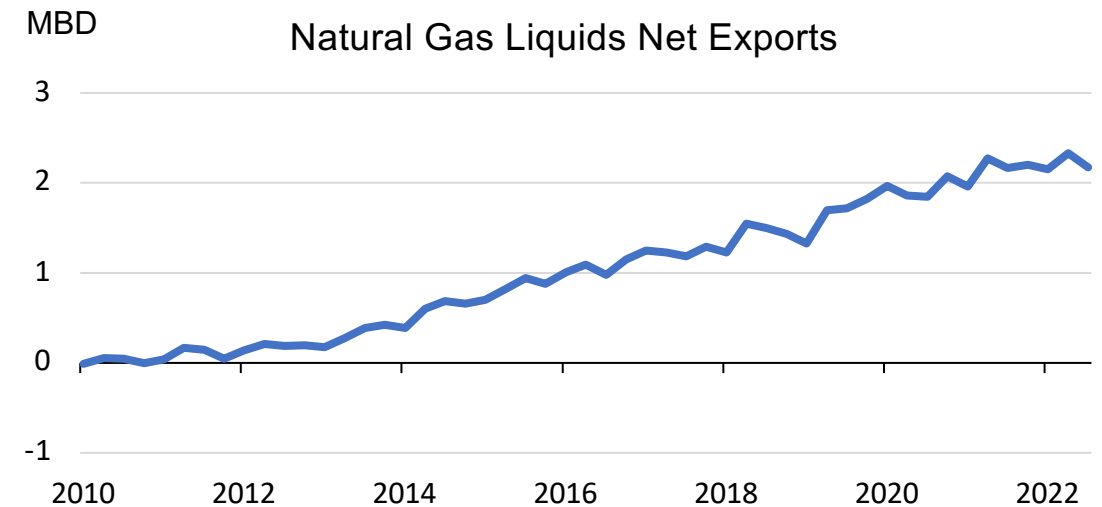
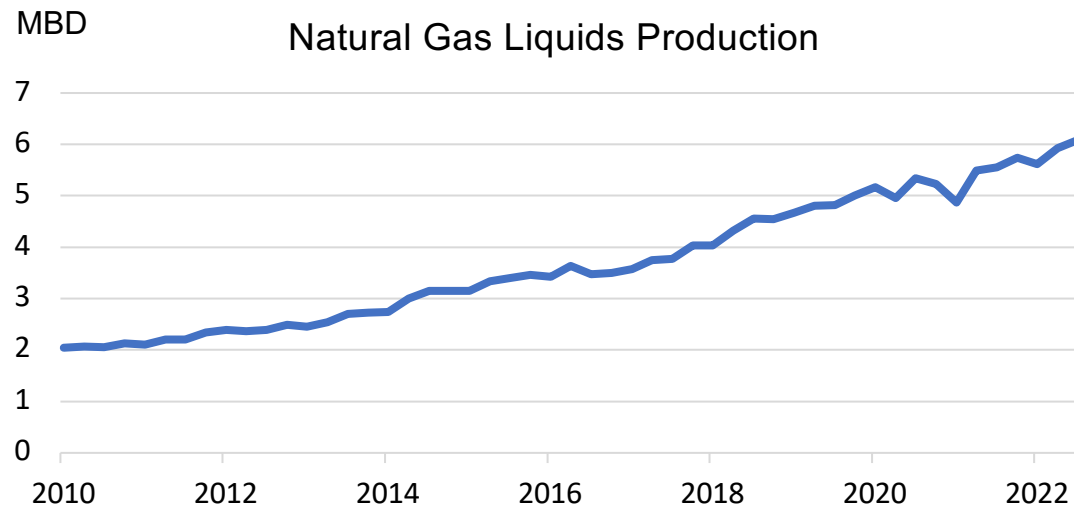
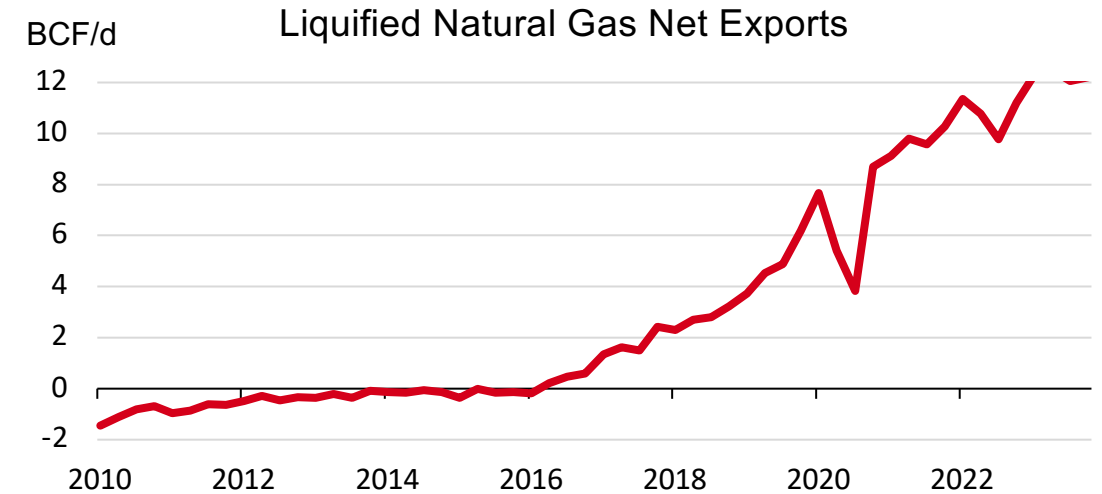
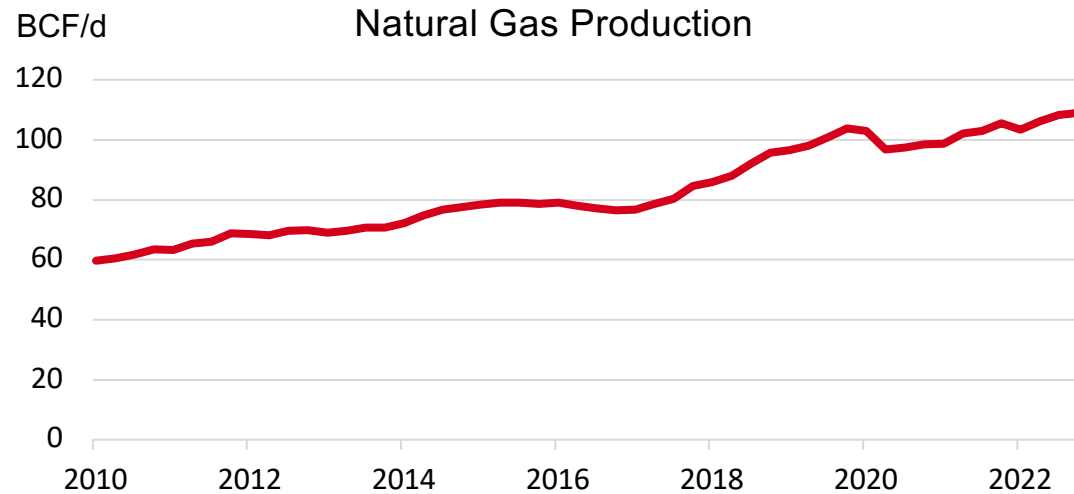


US Crude Supply – Pandemic Impact and Recovery

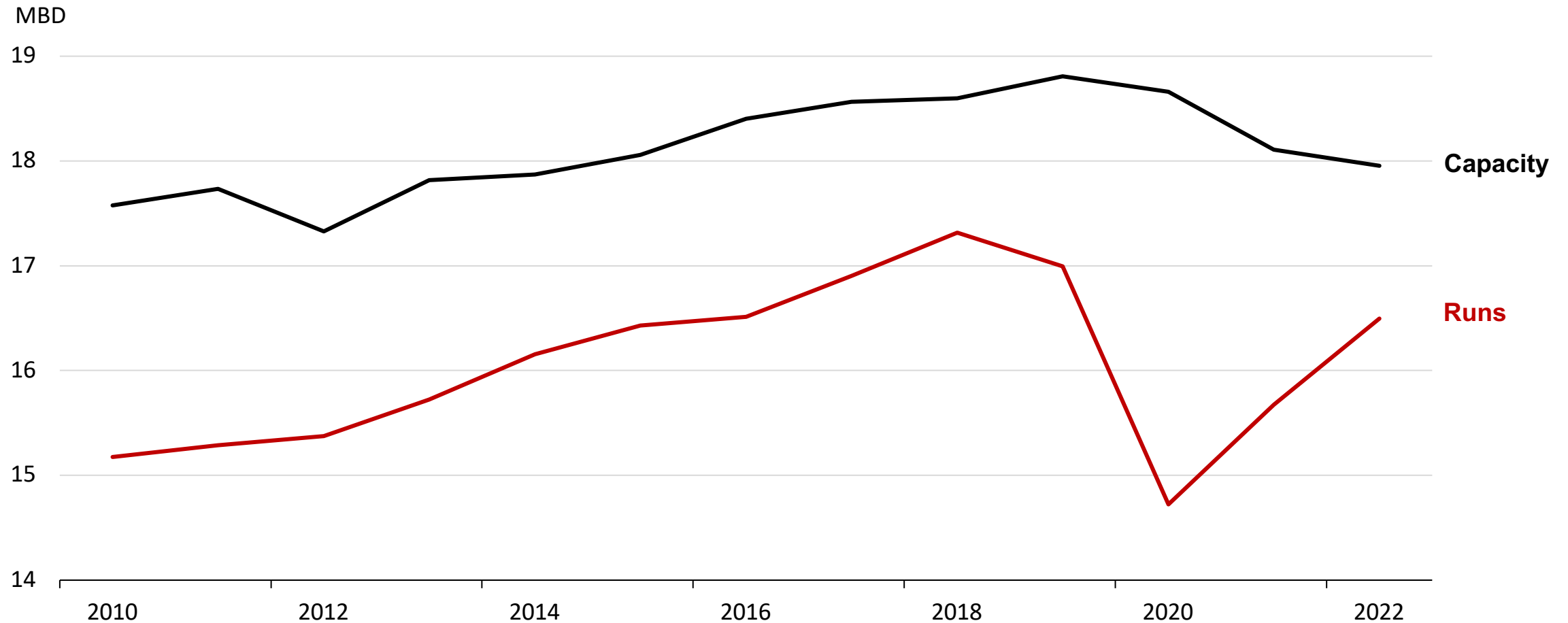


- Growth in crude production improves resilience
- Recovered close to pre pandemic levels
- Imports / Exports to balance grades and processing capability

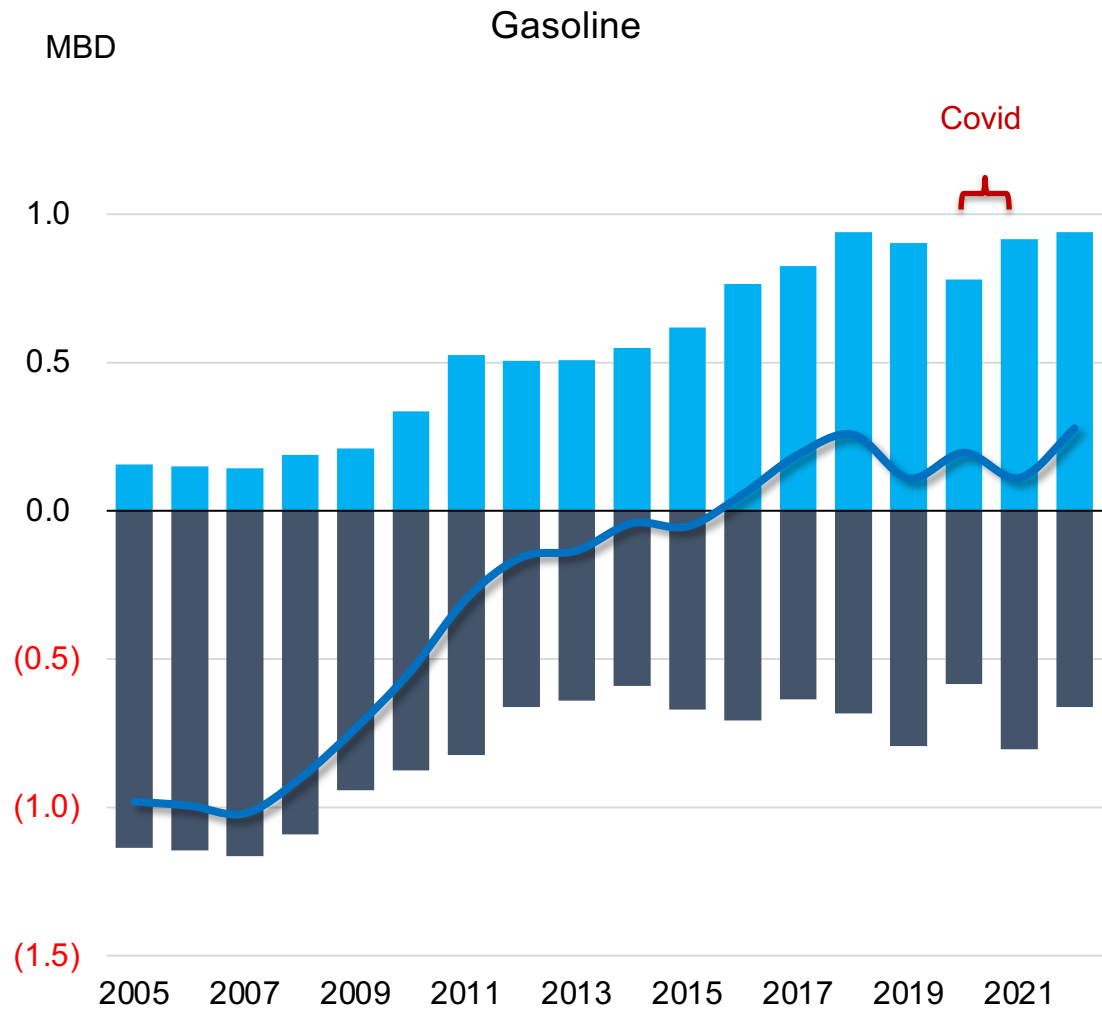
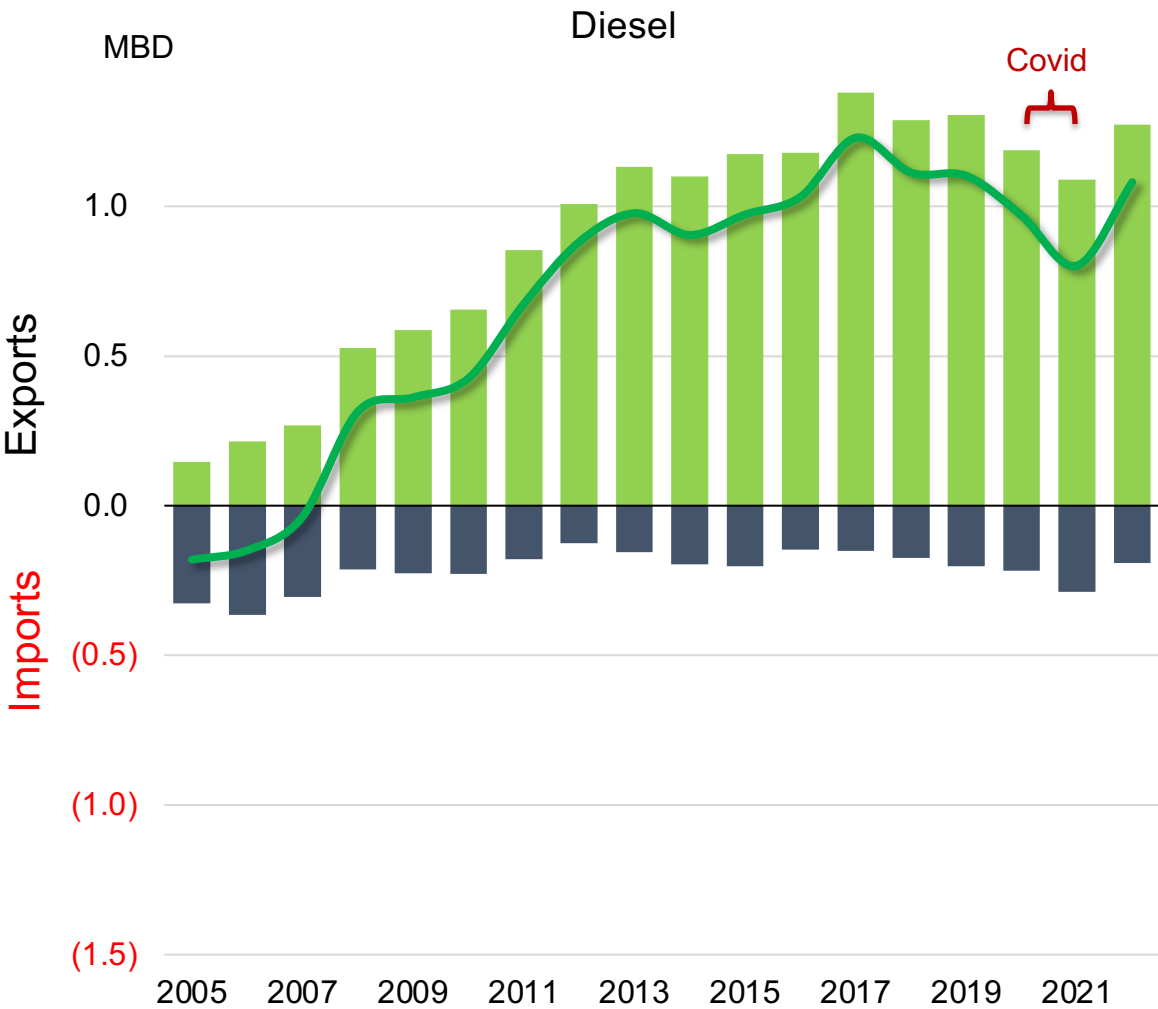
US Natural Gas and NGLs – Continued Production Growth



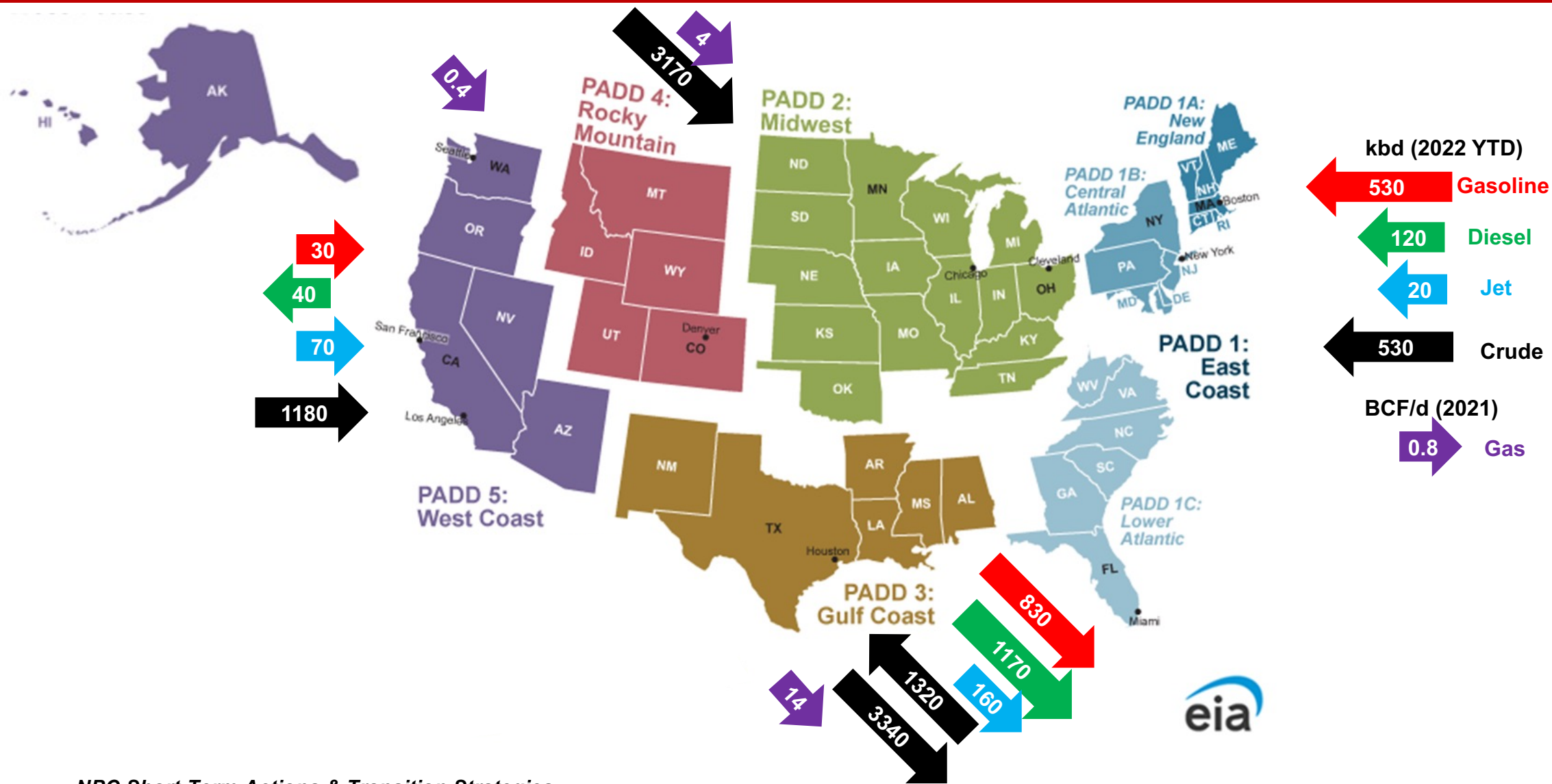
US Refining – Capacity Decrease but now Running Full



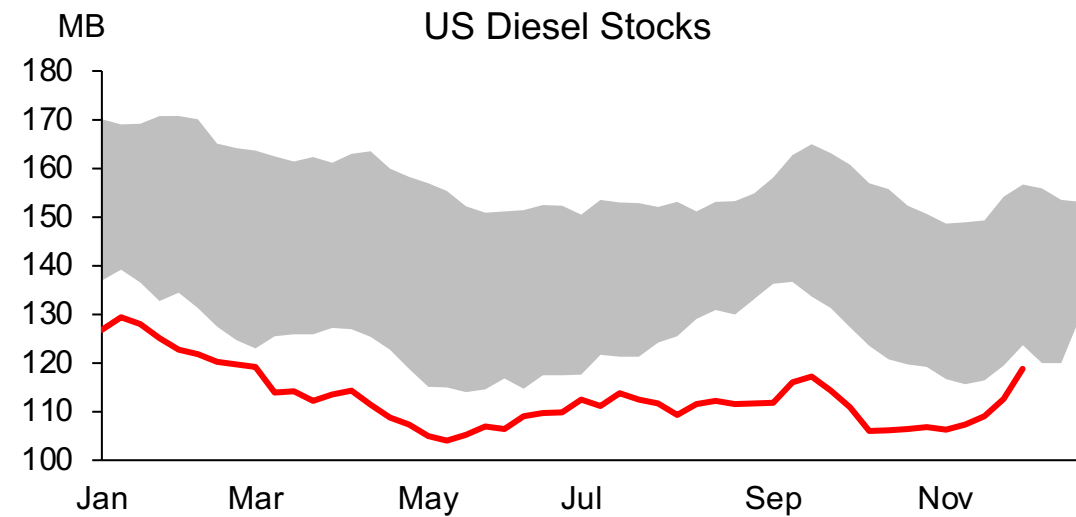
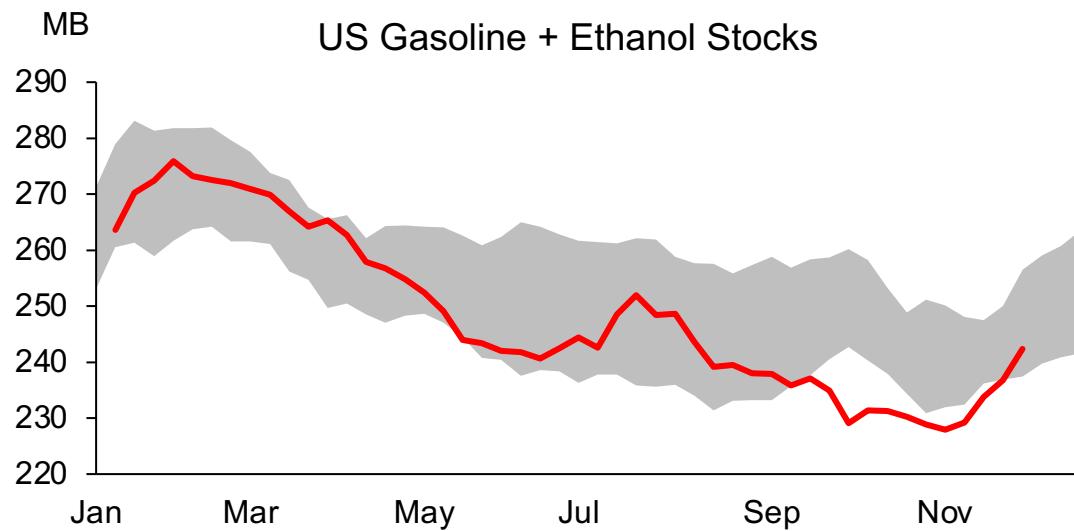
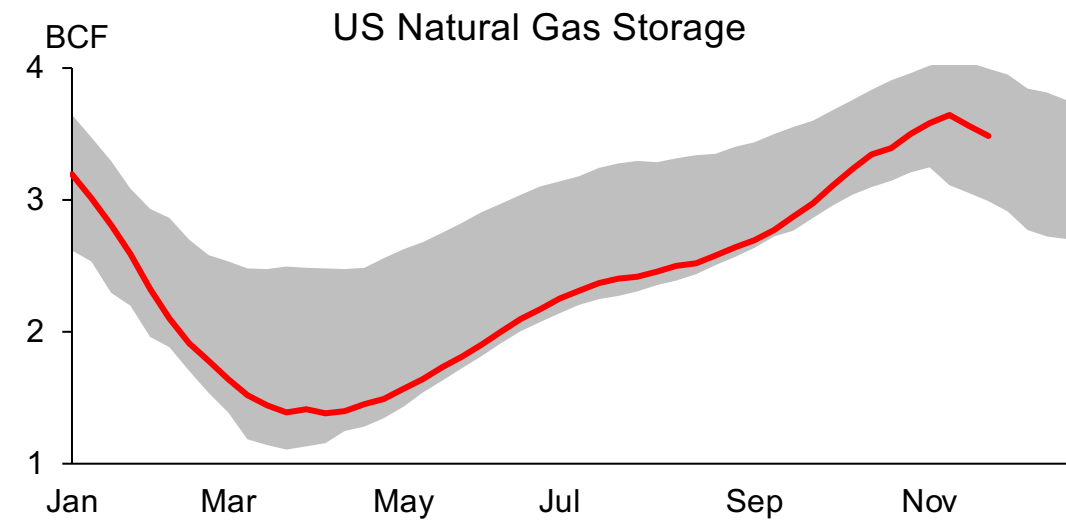
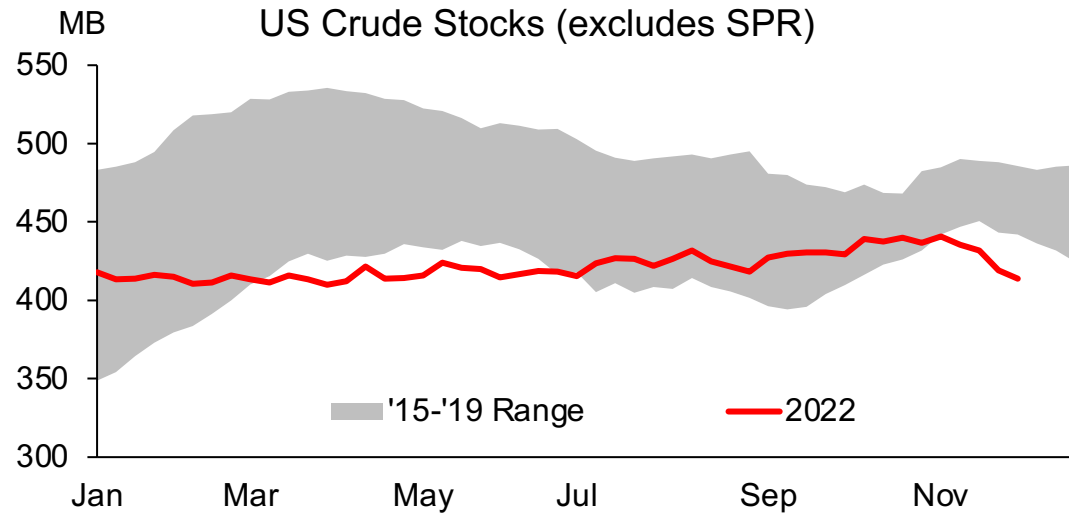
US Gasoline and Diesel Net Exports Improve Resilience



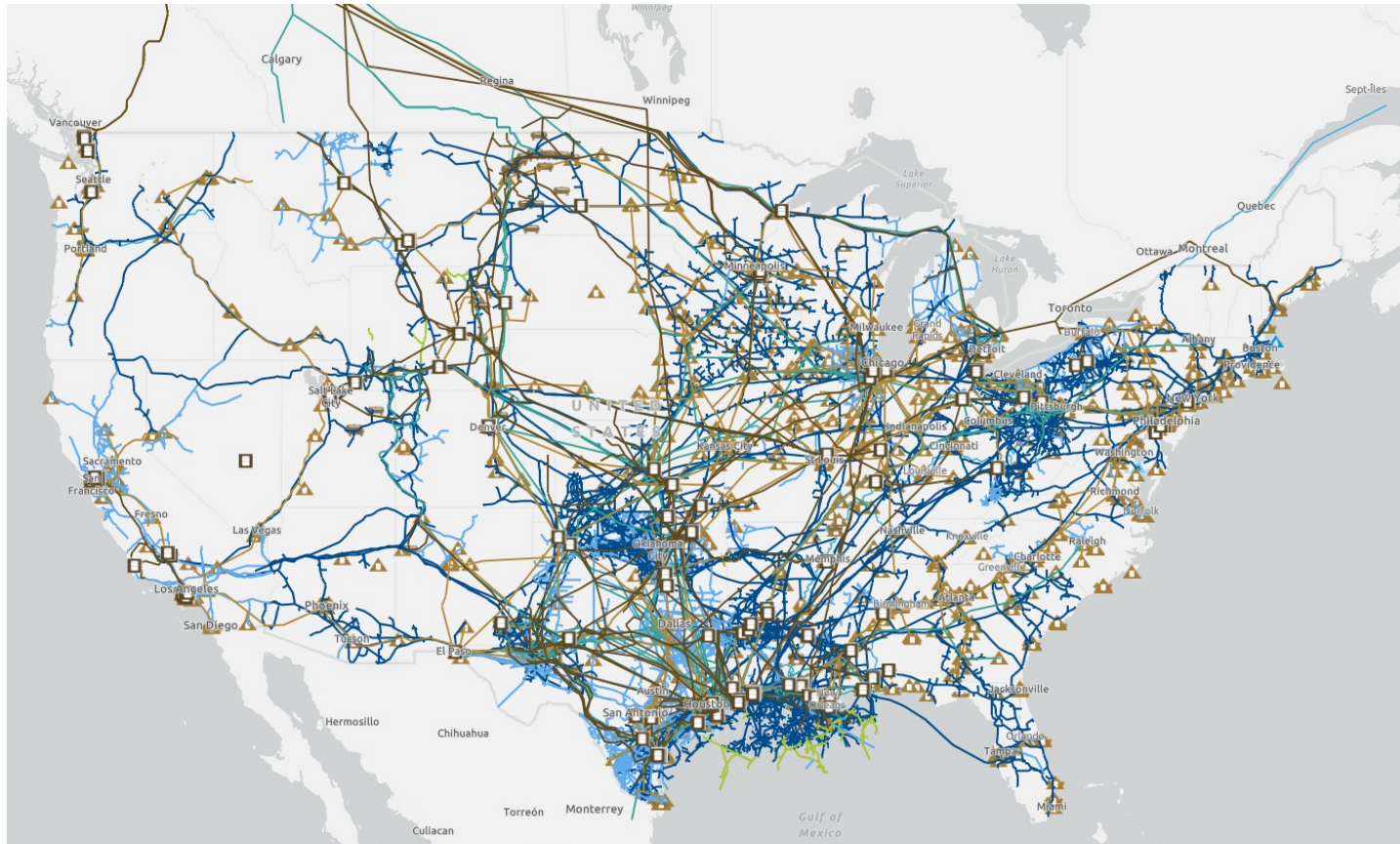
US Trade Flows Optimize Supply and Demand with Full Logistics



Commercial Inventories Recovering



Emergency Response



Source: EIA

- **Resilience of energy system**
 - Increased oil and gas production / exports
 - Infrastructure permitting process complex
- **2014/2016 NPC study recommendations**
 - Significant progress made
 - Sustainment of joint government / industry work key
- **Potential New threats**
 - Cybersecurity, physical damage to infrastructure, damage from extreme weather
- **Government / industry response**
 - Generally working well
 - Industry / government collaboration could be improved

Key Findings from Study

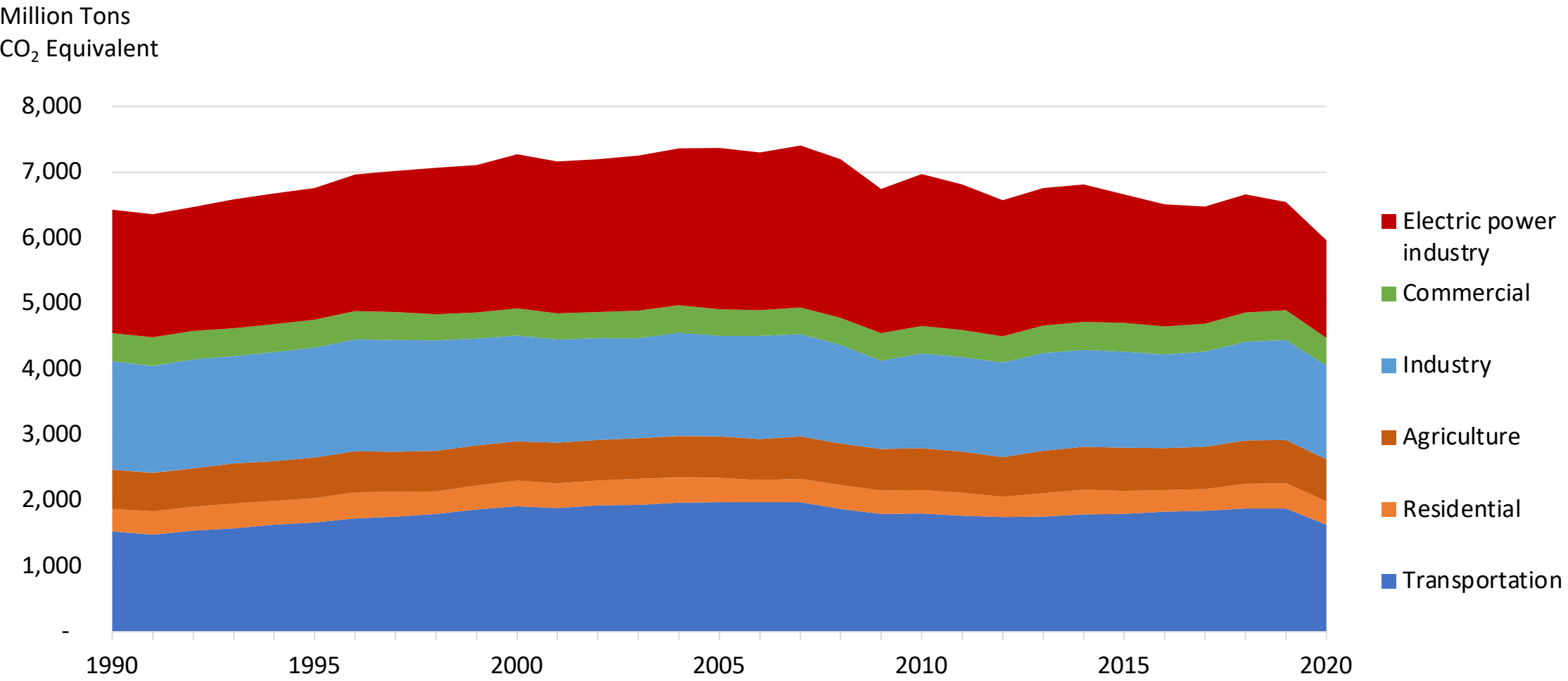
- **U.S. resilience increased by growth in domestic Oil and gas production**
- **Global markets have rebalanced driven by price changes**
- **Tightness in crude and products is global, U.S. key part of global market**
- **Price swings impact consumers**
- **Reducing barriers to resupply and product movement help ensure resilience and lowest price**
- **Emergency response has been enhanced but several potential improvements identified**

Short Term / Emergency Response Recommendations

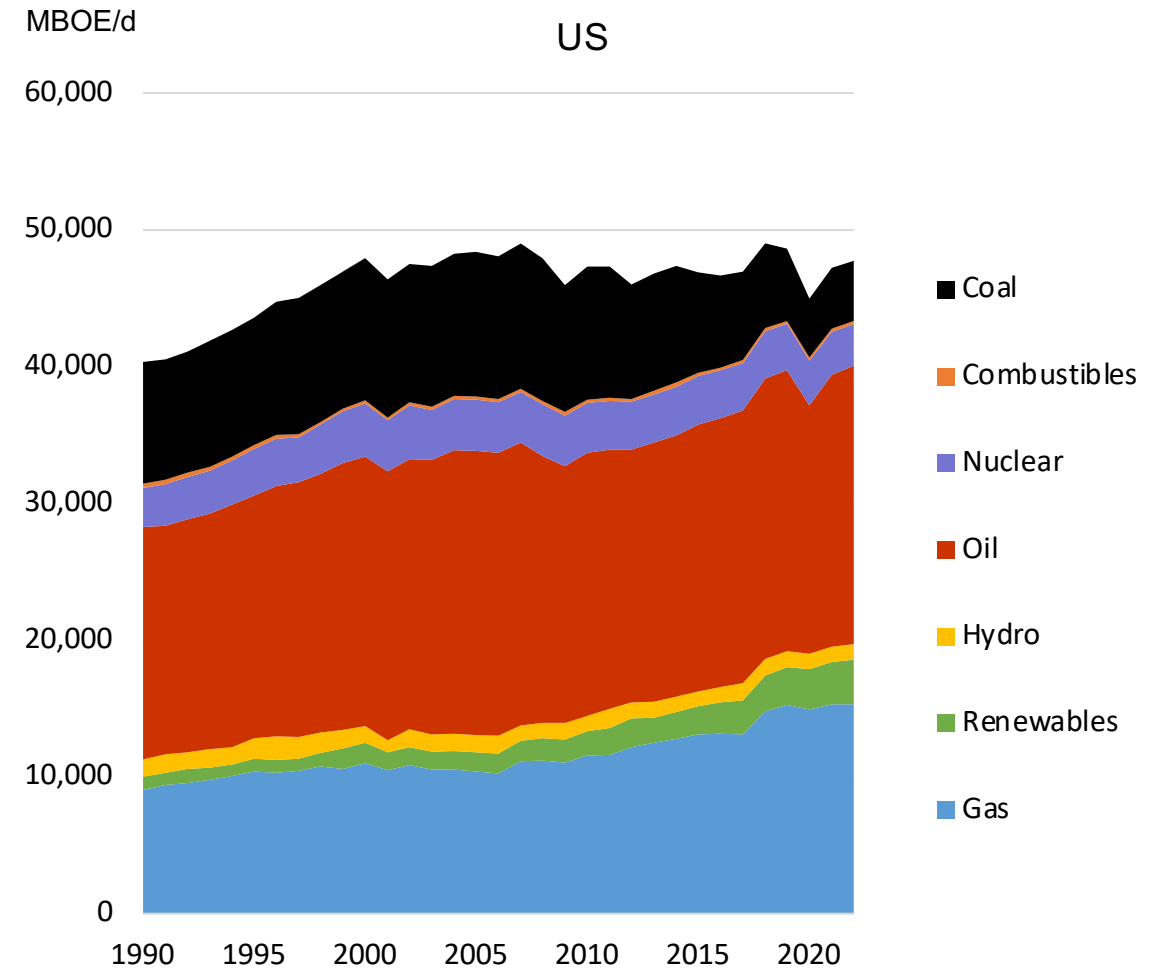
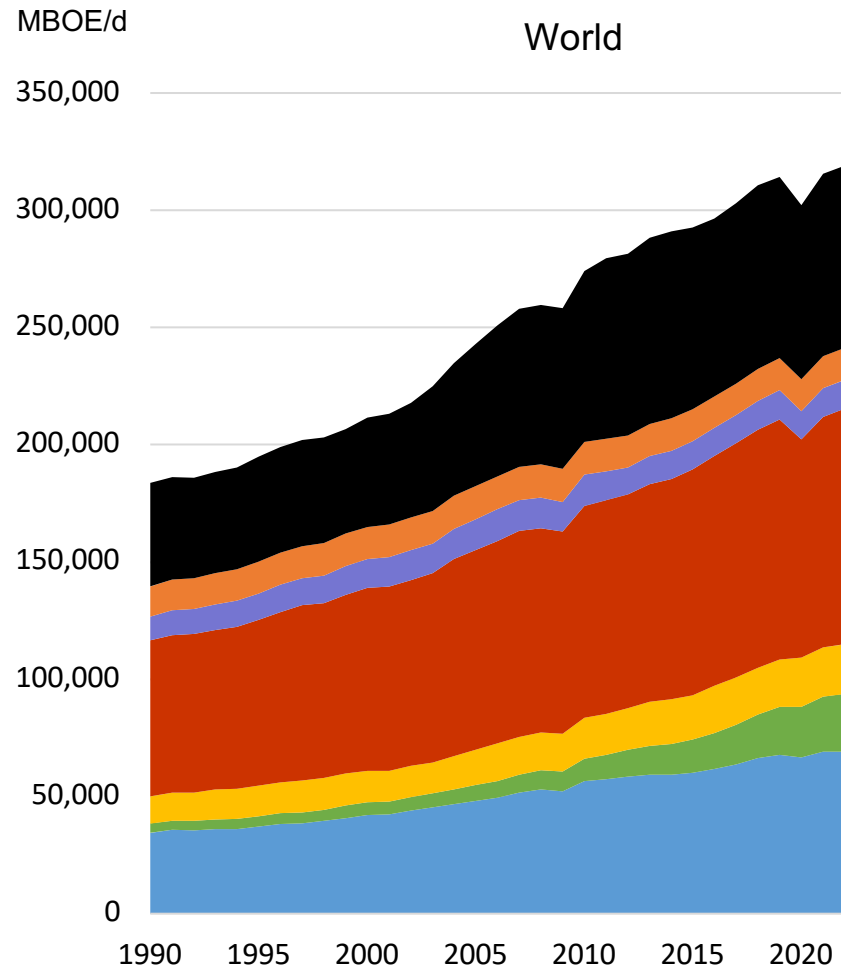
- **Support continued crude oil and product exports**
- **Reform certification and permitting of energy infrastructure and logistics**
- **Jones Act – facilitate and expand waivers**
- **Postpone rebuilding the Strategic Petroleum Reserve**
- **Encourage industry investment across all forms of energy**
- **Relax fuels specifications and labelling during times of supply disruption**
- **Explore options to increase further the utilization of spare refining capacity in China**
- **Continue progress on strengthening the ability of the United States to respond to supply disruptions**
 - Prepare a process to establish company executive representation in times of disruption
 - Ensure progress on the 2014/2016 NPC study recommendations is sustained
 - Focus on increasing domestic production and enhancing infrastructure

Principles and Oil and Gas Industry Initiatives and Technologies for Progressing to Net Zero

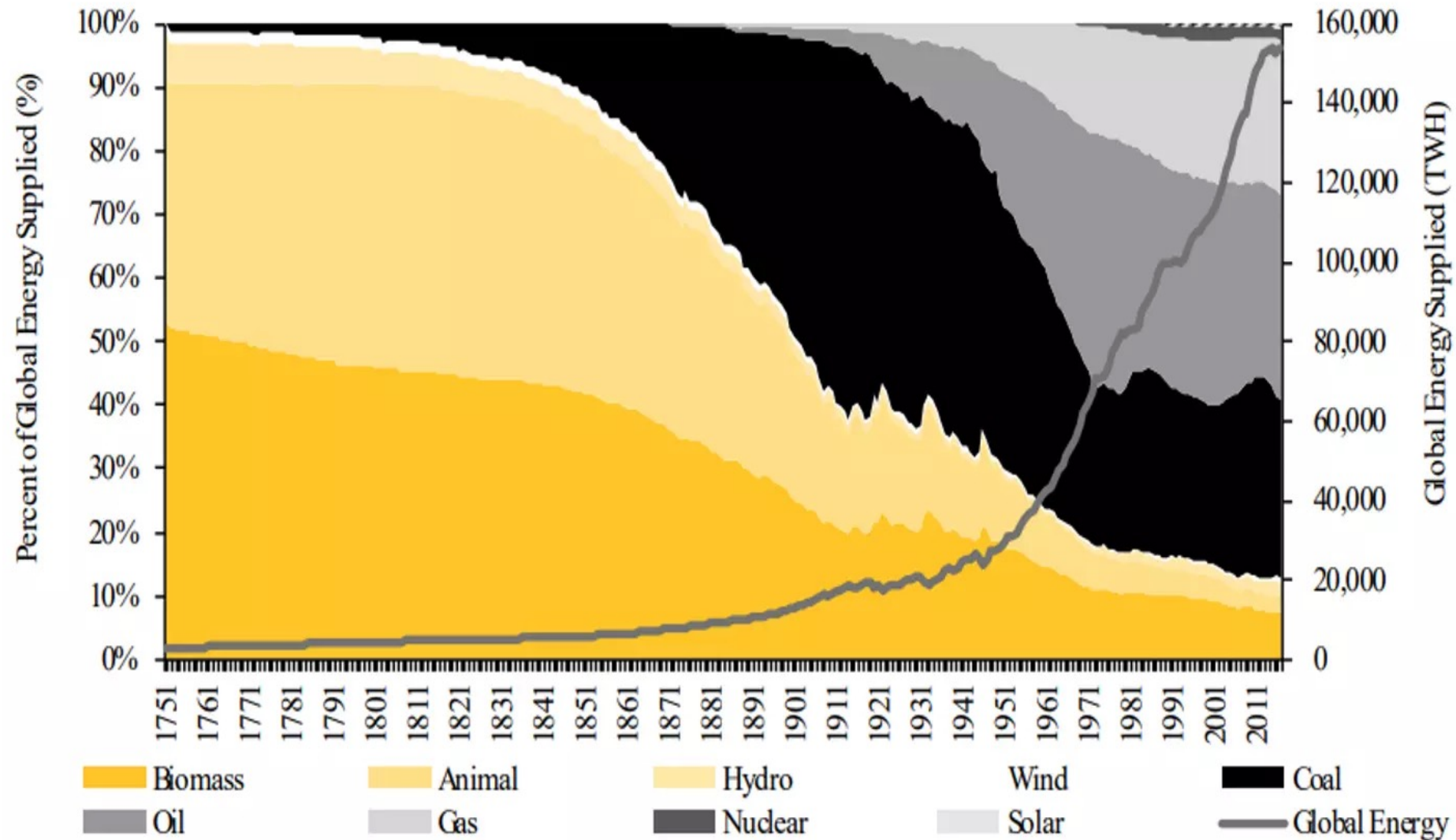
United States CO₂ Emissions Reduced While Economy Grows 50%



Total Energy Demand by Source



Energy System Transitions Have Historically Taken Time



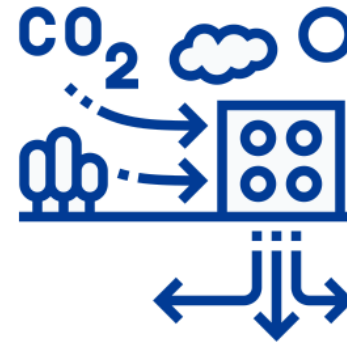
Technologies Needed for Transition Leverage Oil and Gas Competencies



Carbon Capture & Sequestration



Energy Efficiency



Direct Air Capture



Geothermal



Renewable Fuels



Methane Abatement



Hydrogen

Implementation of technologies incentivized by IRA

Principles to Enable a Successful, Timely Transition

- **Transition should be focused on GHG reduction and be energy source agnostic**
- **Increased technology collaboration (Industry, academia, government) is required to accelerate transition**
- **Energy transition will require significant investments**
- **Effective policy support is required to accelerate deployment and cost reductions**
- **Policies that inadvertently cause shortages should be avoided**
- **Oil and gas industry has an essential role to play to help reduce emissions**
- **Federal, state and local governments also have essential roles to play**

Policy Critical for a Well Managed Energy Transition - Recommendations

- **Focus policies on reduction of CO₂ emissions and avoid selecting favorite technologies or industries**
- **Take account of uniqueness of the U.S. energy endowment vs replicating foreign policies**
- **Avoid premature phase out of traditional energy**
- **Focus on incentives for renewable energy and decarbonization technologies vs penalties for traditional energy**
- **Consider energy security and economic robustness as well as GHG reduction**
- **Continue to accelerate innovation and technology deployment through government policy and DOE funding**
- **Improve cohesiveness and predictability of infrastructure permitting**
- **Managing impact to consumers is vital for a well managed and fair transition**

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